REMARKS

I. Introduction

In response to the Office Action dated January 18, 2008, claims 22 and 44 have been amended. Claims 20-22, 44-46 and 48-57 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. Amendments

The Applicants have amended the specification to recite it's continuation status and to cite cases that may be considered as related to the instant application in the sense that the other cases are directed to video on demand technology. Information in these applications may or may not be material and non-cumulative to information presented in this application, and consistent with Rule 56, the Applicant will endeavor to bring material and non-cumulative information from these applications to the Examiner's attention in an Information Disclosure Statement. However, the Examiner is encouraged to review the related applications for any information that might be useful in determining the patentability of the Applicant's invention.

The Applicants' attorney has made amendments to the claims as indicated above. These amendments were made solely for the purpose of clarifying the language of the claims, and were not required for purposes of patentability.

III. Non Art Rejection

In paragraphs (1)-(2), the Office Action rejected claims 22 and 46 under 35 U.S.C. §112, first paragraph, because the specification does not reasonably provide enablement for selecting a second video program for real time reception wand receiving the selected video program in real time while receiving time segments.

The Applicants respectfully traverse. The specification has been amended to recite the claimed subject matter. Since the added material merely recites claim 1 and claim 22 as originally filed in prose form, no new matter has been introduced.

Further, the Applicants' respectfully submit that the specification provides enablement for selecting a second video program for real-time reception and receiving the selected video program in

real time while receiving time segments. Although not necessary to implement this feature, the specification discloses multi-tuner IRDs, multiple transport chips and multiple encoders that, using the teaching provided by the Applicants' specification, would enable one of ordinary skill in the art would can be used to perform the steps described in claim 22 (see, for example, page 21, lines 8-17, page 22, line 15 - page 23, line 2; page 27, lines 20-30, page 13, lines 18-23)

On page (2), the Office Action rejected claims 48-51 under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement.

The Examiner notes that the claim recites the use of "one tuner for receiving multiple segments of the selected video program in parallel, wherein each segment is received on one of the plurality of channels" and is unsure how that can be accomplished. The Examiner interpreted the claims to use multiple tuners to receive multiple segments, each of which is on a plurality of channels, as supported in [0088] of the application.

> [0088] Alternate embodiments using IRDs **200** with two or more tuner/demodulators **204** are possible as well. Generally, IRDs **200** with multiple tuners (n-tuner IRDs **200**) can be used to receive staggered shows on n-frequency bands. For example, the time-staggered video programs may be broadcast on two frequency bands, and received by an IRD **200** having two tuner/demodulators **204**, one tuner/demodulator **204** for receiving signals on each of the two frequency bands. Further, it is possible to broadcast m time-staggered video programs on n frequency bands. In this embodiment, IRDs **200** with single tuner/demodulator **204** can receive a subset of the m video programs (the time-staggered video programs broadcast on one of the n frequency bands), while IRDs **200** with multiple tuner/demodulators **204** can receive additional video programs as well.

This indeed discloses a multiple tuner embodiment. However, a multiple tuner embodiment is not required to implement claim 48. The specification teaches the use of system in which information for each video channel can be transmitted in packets in a single stream. FIG. 4A presents an example of such a stream.

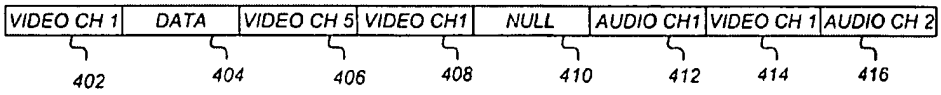

FIG. 4A

But the foregoing stream represents a stream from a single transponder. The system may include a number of satellites, each with a number of transponders:

> [0035] The video distribution system 100 can comprise a plurality of satellites 108 in order to provide wider terrestrial coverage, to provide additional channels, or to provide additional bandwidth per channel. In one embodiment of the invention, each satellite comprises 16 transponders to receive and transmit program material and other control data from the uplink center 104 and provide it to the subscribers 110. However, using data compression and multiplexing techniques the channel capabilities are far greater. For example, two-satellites 108 working together can receive and broadcast over 150 conventional (non-HDTV) audio and video channels via 32 transponders.

However, even if a single tuner could only receive a signal from one frequency band or one transponder at a time, that signal may include information for multiple channels (as shown in FIG. 4A above). Hence, multiple channels of information can be transmitted at one time. As the Applicant's specification makes clear, a particular advantage of the multiple tuner embodiment is not to receive multiple channels of information at a time (since a single tuner system is capable of this feat), but rather to eliminate the need that all of the channels transmitted in parallel be within the same frequency band:

> [0089] Hence, 2-tuner or more (n-tuner) IRDs 200 can be used to eliminate the limitation on the broadcaster for all staggered start time transmissions of a program to be all on the same frequency.

Hence, the Applicants traverse the rejection of claims 48-51 based on 35 U.S.C. § 112, first paragraph

In paragraphs (3)-(4), the Office Action rejected claims 44-46 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Applicant thanks the Examiner for noting this error, and claim 46 has been amended to clarify that the claim is an apparatus claim.

IV. The Cited References and the Subject Invention

A. The Ebisawa Reference

U.S. Patent No. 6,263,504, issued July 17, 2001 to Ebisawa discloses a data delivery system, data receiving apparatus, and storage medium for video programs. A data storage unit is provided in a receiving apparatus, whereby a video program can be provided with an instantaneous response equivalent to the VOD system. Namely, the data of the first part of the video data is stored in the

data storage unit in advance. When there is a request for reproduction, that stored data is immediately reproduced. The data after the first data is sent from a transmitting apparatus in the same way as an NVOD system heretofore. Buffering is performed in the receiving apparatus, and the resultant data is reproduced continuous with the data of the first part.

B. The Inoue Reference

U.S. Patent No. 5,729,280, issued March 17, 1998 to Inoue et al. discloses a near video-on-demand signal receiver having a memory that provides for VCR like functions. A video signal receiver receives a plurality of video channels simultaneously carrying, offset by a transmission interval, a single video program, selects one channel from which to obtain the program for display to a user, and achieves a pause function in the display of the transmitted video program by temporarily storing a segment of the video program equal to the length of the transmission interval and obtaining the remainder of the program at a later time from the same or another channel.

C. The Okura Reference

U.S. Patent No. 6,487,722, issued November 26, 2002 to Okura et al. disclose an EPG transmitting apparatus and method, EPG receiving apparatus and method, EPG transmitting/receiving system and method, and provider. The broadcast hour and the title of a program is displayed in an EPG (Electronic Program Guide). If the charge of the program is lower than the other corresponding programs, a symbol "Discount" is also displayed. If the program is the last one of NVOD (Near Video On Demand) programs, a symbol "Last" is also displayed.

D. The Ganek Reference

U.S. Patent No. 5,724,646, issued March 3, 1998 to Ganek et al. discloses fixed video-on-demand that satisfies the needs of "surfers." The process entails a server operating in a standard Near-Video-on-demand (NVOD) mode, whereby it repeatedly transmits multiple copies of each program on separate channels. Each copy is delayed by a staggered time interval. The server also repeatedly transmits a beginning portion of each NVOD program of a duration up to the staggered time interval. The invention provides a way to fulfill a VOD user requests asynchronous with the start of a NVOD transmission but which still makes primary use of the NVOD transmission for

that requestor. The invention further advantageously provides fixed asset utilization in a predictable manner.

E. The Reynolds Reference

U.S. Patent No. 6,934,963, issued August 23, 2005 to Reynolds et al. disclose an interactive television program guide with passive content. A hybrid passive-interactive program guide is generated by combining the features of an interactive program guide with the passive video portion of a passive program guide. The interactive guide may replace passive listings with interactive listings, replace passive features with interactive features, provide supplemental advertisements, or replace passive tagging information with interactive tagging information. Users may be provided with an opportunity to purchase a program or product being advertised, to view listings for segments aired in the video portion of the passive guide, to schedule reminders for listings or video segments that are displayed by the passive guide, or to schedule video segments and related information for recording.

V. Office Action Prior Art Rejections

In paragraphs (5)-(6), the Office Action rejected claims 20-21, 44, 45, 48, 50 and 51 under 35 U.S.C. § 103(a) as unpatentable over Ebisawa, U.S. Patent No. 6,263,504 (Ebisawa) in view of Inoue et al., U.S. Patent No. 5,729,280 (Inoue). The Applicants respectfully traverse.

With Respect to Claims 20-21: Claim 20 recites:

> *A method of storing a video program in response to a user demand, wherein the video program is repeatedly transmitted on one of a plurality of channels, each repeated transmission separated in time from a preceding transmission of the video program by a retransmission interval and being transmitted on a different channel than the previous transmission, the method comprising the steps of:*
>
> *selecting at least one of a plurality of video programs; and*
>
> *receiving a plurality of time segments of the selected video program in parallel, wherein each of the time segments is received on a different one of the channels.*

Ebisawa is said to disclose a method of storing a video program in response to a user demand (col. 6, lines 12-34), wherein the video program is repeatedly transmitted on one of a plurality of channels, each repeated transmission separated in time from a preceding transmission of the video

program by a retransmission interval and being transmitted on a different channel than the previous transmission, and selecting at least one of a plurality of video programs.

The Office Action acknowledges that Ebisawa does not teach the process of receiving the time segments in parallel, but alleges that Inoue discloses this feature. The Office Action relies on Inoue's abstract, which states:

> **A video signal receiver receives a plurality of video channels simultaneously carrying, offset by a transmission interval, a single video program, selects one channel from which to obtain the program for display to a user, and achieves a pause function in the display of the transmitted video program by temporarily storing a segment of the video program equal to the length of the transmission interval and obtaining the remainder of the program at a later time from the same or another channel.**

However, the Office Action has misinterpreted this statement. The foregoing does not disclose receiving a plurality of the time segments of the video program in parallel. Instead, it reads that a video signal receiver receives a plurality of video channels and that he video channels simultaneously carry, offset by a transmission interval, a single video program. It does not disclose a video signal receiver that can simultaneously *receive* those channels. That fact is further buttressed by the body of the Inoue reference, which makes it clear that switches105, 20, and 21 are used to avoid the need to receive more than one channel at a time.

Accordingly, the Applicant respectfully traverses the rejection of claim 20. Claim 21 recites the same features and is therefore patentable as well.

With Respect to Claims 44 and 45 : Claim 44 recites:

> *An apparatus for storing a video program in response to a user demand, wherein the video program is repeatedly transmitted on one of a plurality of channels, each repeated transmission separated in time from a preceding transmission of the video program by a retransmission interval and being transmitted on a different channel than the previous transmission, the method comprising:*
>
> *means for selecting at least one of a plurality of video programs; and*
>
> *means for receiving a plurality of time segments of the selected video program in parallel, wherein each of the time segments is received on a different one of the channels.*

Claim 44 recites features analogous to those of claim 20 and is patentable for the same reasons. Claim 45 recites the features of claim 44 and is patentable for the same reasons.

With Respect to Claims 48, 50 and 51: Claim 48 recites:

An apparatus for providing a video program in response to a user demand, wherein the video program is repeatedly transmitted on one of a plurality of channels, each repeated transmission temporally separated from a previous transmission by a retransmission interval and being transmitted on a different channel than the previous transmission, the apparatus comprising:

an input device for accepting a selection of at least one of a plurality of video programs for VOD service;

a tuner for receiving multiple segments of the selected video program in parallel, wherein each segment is received on one of the plurality of channels; and

a storage device, for pre-storing a first segment of the selected video program, and for storing subsequent segments of the selected video program in parallel while retrieving the pre-stored first segment of the selected video program.

Claim 48 recites a tuner for receiving multiple segments of a selected video program in parallel, wherein each segment is received on one of a plurality of channels. As described above, none of the references of record disclose this feature.

With Respect to Claim 50: Claim 50 recites:

An apparatus for providing a video program transmitted in time segments on a plurality of channels in response to a user demand, comprising:

an input device for accepting a selection of at least one of a plurality of video programs for VOD service;

a tuner for receiving time segments of the selected video program in parallel, wherein each segment is received on one of the plurality of channels; and

a storage device, for storing the time segments of the selected video program in parallel wherein each of the time segments is received on a different one of the channels.

Claim 50 recites *a tuner for receiving time segments of the selected video program in parallel, wherein each segment is received on one of the plurality of channels.* As described above, none of the cited references discloses this feature. Accordingly, the Applicant respectfully traverses the rejection of claim 50. Claim 51 recites the same features as claim 50, and is patentable for the same reasons.

In paragraph (7), the Office Action rejected claim 49 under 35 U.S.C. §103(a) as being unpatentable over Ebisawa in view of Inoue, as applied to claim 48 and in further view of Okura et al., U.S. Patent No. 6,487,722 (Okura). The Applicant respectfully traverses for the reasons described above with respect to claim 48.

In paragraph (8), the Office Action rejected claim 52 under 35 U.S.C. §103(a) as being unpatentable over Ebisawa in view of Inoue in further view of Ganek et al., U.S. Patent No. 5,724,646 (Ganek).

Claim 52 recites:

A method of pre-storing a video program to be later provided in response to a user demand, wherein the video program is repeatedly transmitted on one of a plurality of channels, each repeated transmission temporally separated from a previous transmission by a retransmission interval and being transmitted on a different channel than the previous transmission, the method comprising the steps of:

receiving and storing a first segment of a selected video program in a local storage device before accepting a user to view the video program, wherein a temporal length of the first segment is substantially equivalent to the retransmission interval; and

wherein portions of the first segment are received and stored on the plurality of channels in parallel.

As described above, none of the cited references discloses a system in which portions of a first segment are received in parallel. Accordingly, the Applicant respectfully traverses this rejection.

In paragraph (9), the Office Action rejected claims 53-57 under 35 U.S.C. §103(a) as being unpatentable over Ebisawa in view of Inoue and Ganek as applied to claim 52, and further in view of Okura. The Applicant respectfully traverses these rejections for the same reasons as claim 52

In paragraph (10), the Office Action rejected claims 22 and 46 under 35 U.S.C. §103(a) as being unpatentable over Ebisawa in view of Inoue as applied to claims 20 and 44, and in further view of Reynolds et al., U.S. Patent No. 6,934,963 (Reynolds). Applicants respectfully traverse these rejections. Claims 20 and 46 do not disclose *receiving a plurality of time segments of the selected video program in parallel, wherein each of the time segments is received on a different one of the channels.* The Reynolds reference is of no help. The passage relied upon:

> If desired, control circuitry **42** may have sufficient tuning circuitry to provide for tuning to multiple channel simultaneously. This approach may allow users to watch one channel, while simultaneously recording the passive guide or a program associated with a passive guide video segment from another channel. Systems in which interactive television program guides provide for the simultaneous watch and record of programs from multiple channels are described, for example, in Lemmons et al. U.S. patent application Ser. No. 09/329,850, filed Jun. 11, 1999, which is hereby incorporated by reference herein in its entirety.

merely discloses the use of multiple channels so as to watch one program while recording another.

VI. Dependent Claims

Dependent claims 21, 22, 45, 46, 49, 51 and 53-57 incorporate the limitations of their related independent claims, and are therefore patentable on this basis. In addition, these claims recite novel elements even more remote from the cited references. Accordingly, the Applicant respectfully requests that these claims be allowed as well.

VII. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

It is believed that no fees are due at this time. Nonetheless, should any charges be deemed necessary, please charge any such fees, or credit any overpayments, to Deposit Account No. 50-0383 of the DIRECTV Group, Inc.

Respectfully submitted,

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